Georg Fischer Waga N.V.

+GF+

The connection for all pipe diameters
Restraint - non restraint
DN50 - DN400

MULTI/JOINT®
3000 Plus

MULTI/JOINT® 3000 Plus

In your daily work you may encounter pipe systems of various material in the ground. You will need to connect these with new pipe materials and preferably have a restraint joint. Well known jointing methods, such as collars, flanging, welding and the use of thrust blocks can be very time consuming. Would you prefer to work fast and reduce costs? The reliable MULTI/JOINT® 3000 Plus system is your answer! Our wide range fittings allow you to quickly make a restraint connection between all pipe materials, without special tools!

Wide range restraint fittings up to DN400

Unique sealing system

The MULTI/JOINT® 3000 Plus system comprises wide range fittings, flange adaptors, reduction pieces, bends, duck feet bends and end caps of ductile cast iron in the ranges DN50 - DN400. Thanks to the unique wide range sealing system all fittings can be made restraint as long as the nominal diameters are the same. All you need to know is the outside diameter of the pipe, the medium and the working pressure.

Proven quality

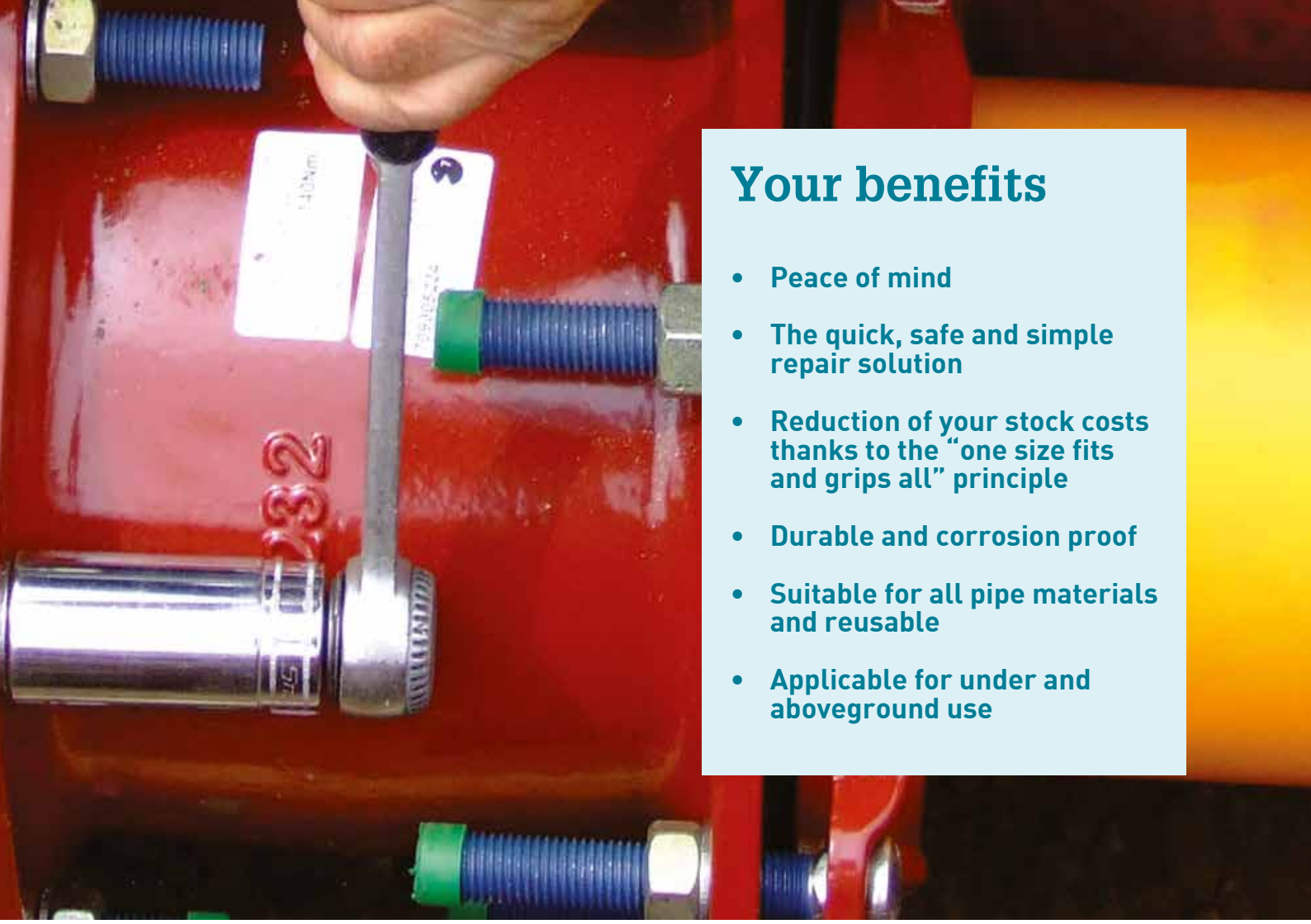
The MULTI/JOINT® 3000 Plus system has a range up to 43 mm and connects pipes from 46 - 433 mm (stepless up to 310 mm). The high quality restraint fittings are suitable for applications in water up to 16 bar and gas up to 8 bar. The MULTI/JOINT® system has earned its reputation for quality on the international market over the past 25 years.

Save time and stock

The MULTI/JOINT® 3000 Plus fittings can basically be installed under all conditions and are easy to install. There is no need for special tools which saves you a lot of time during installation. Thanks to the "one size fits and grips all" principle you can also save on your stock costs.

Fields of application

- **Water transport**
- **Water distribution**
- **Gas distribution**
- **Waste water**
- **Maintenance and repair**
- **Industrial applications**



Your benefits

- **Peace of mind**
- **The quick, safe and simple repair solution**
- **Reduction of your stock costs thanks to the “one size fits and grips all” principle**
- **Durable and corrosion proof**
- **Suitable for all pipe materials and reusable**
- **Applicable for under and aboveground use**

MULTI/JOINT® 3000 Plus because:

- the MULTI/JOINT® 3000 Plus fittings have **easily accessible misaligned bolts**. Installers can easily assess the correctness of their own installation in the trench
- the MULTI/JOINT® 3000 Plus fittings have **an angularity of ± 8° per socket end**; for a coupling this means a total of maximum 16° angularity
- the MULTI/JOINT® 3000 Plus fittings are **supplied with separate flange drillings for PN10 and PN16**
- **the technical life expectancy** of all the MULTI/JOINT® 3000 Plus products **is 50 years**
- the MULTI/JOINT® 3000 Plus is **a proven quality connection for more than 25 years**.
- the MULTI/JOINT® 3000 Plus has **an internationally proven track record**
- To work clean, safe and durable all the MULTI/JOINT® 3000 Plus fittings are **sealed with hygiene caps** to prevent them from being contaminated or damaged.

Unique sealing system, a reliable connection

When the quality standard is high, you need a reliable connection. The MULTI/JOINT® 3000 Plus system meets the demands and is suitable for applications in water and gas. The uniqueness of the system lies in the sealing which consists of a flexible ring (Uni/Fleks ring or Uni/Fiks ring) which consists of plastic segments and a rubber sealing ring (EPDM or NBR). The Uni/Fiks version is supplied with metal grippers which make the MULTI/JOINT® 3000 Plus restraint on all types of pipe materials.

Uni/Fiks ring

Varioseal:
rubber gasket
(EPDM or NBR)

Body:
ductile cast iron GGG45 EN-GJS-450-10
with Resicoat® epoxy powder coating
type RT 9000 R4

Nuts:
stainless steel A2 (AISI 304)
galvanised and passivated
or stainless steel A4 (AISI 316)

Bolts:
stainless steel A2 (AISI 304) PTFE coated
or stainless steel A4 (AISI 316) PTFE coated

Clamp ring:

ductile cast iron GGG45 EN-GJS-450-10

with Resicoat® epoxy powder coating

type RT 9000 R4

Uni/Fikser:

stainless steel A4 (AISI 316)

Hygiene cap:

Ensures the fitting stays

clean from production

to point of use

Washer:

stainless steel A2 (AISI 304)

or stainless steel A4 (AISI 316)

Easy installation

Uni/Fleks ring

The Uni/Fleks ring is a combination of a plastic ring, consisting of plastic segments, with a thin rubber sealing (Varioseal). This rubber sealing (available both in EPDM and NBR) is a reliable solution for both water and gas applications. The Uni/Fleks ring is non restraint.

Uni/Fiks ring

When metal grippers (Uni/Fiksers) are placed in the Uni/Fleks ring, the sealing system is restraint. The Uni/Fiks ring with the Uni/Fiksers makes a restraint connection up to an impressive 16 bar for water and 8 bar for gas, both on rigid and plastic pipes.

Progressive sealing and gripping mechanism

The plastic segments in the ring sizes DN150 – DN400 consist of two parts; the wedge and the topple. The wedge is made of POM and is in contact with the pipe material. The topple, made of polyamide, ensures the integrity of the ring. This combination results in a progressive sealing and gripping mechanism. The plastic segments in the ring sizes DN50 – DN125 consist of one part, made of POM. Furthermore the design of the ring enables large range coverage in outside diameters.

Uni/Fikser

The Uni/Fiksers ensure optimal restraint both on rigid pipe materials and on plastic pipes, without compromise.

Easy installation and reuse

The relatively long body of the MULTI/JOINT® 3000 Plus fittings offers a large insertion depth. This large installation length makes the installation easy, as you can use this length as desired. Moreover, the fittings are supplied with a clear installation manual. Since the fittings can easily be deinstalled, the system is also suitable for temporary installation after which multiple reuse is possible.

One complete system

Model			Type
	Coupling	restraint	3007
		non restraint	3000
	Reduced coupling	restraint	3107
		non restraint	3100
	Flange adaptor	restraint	3057
		non restraint	3050
	Reduced flange adaptor	restraint	3157
		non restraint	3150
	End cap blind	restraint	3207 blind
		non restraint	3200 blind
	End cap ¾ - 2" threaded	restraint	3207 ¾ - 2" threaded
		non restraint	3200 ¾ - 2" threaded
	PE adaptor	restraint	3067
	Spigot end	restraint	3087
		non restraint	3080
	Reduced spigot end	restraint	3187
		non restraint	3180
	Duckfoot	restraint	3457
		non restraint	3450
	Reduced duckfoot	restraint	3557
		non restraint	3550
	Bend	restraint	3407
		non restraint	3400

Long life expectancy

The ductile cast iron MULTI/JOINT® 3000 Plus products are supplied with a corrosion proof Resicoat® epoxy powder coating. This combination extends the life expectancy significantly. The fittings are maintenance-free and have a designed life expectancy of 50 years. This is a clear advantage; after all, you want to be able to guarantee a constant supply of water and gas to the end user and prevent renewed maintenance and repair.

+Durable and reliable connections for a quick, safe and simple repair solution

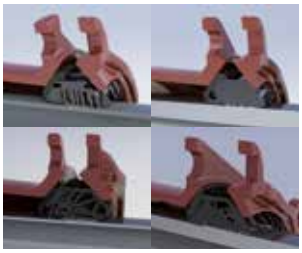
Technical specifications

Specifications

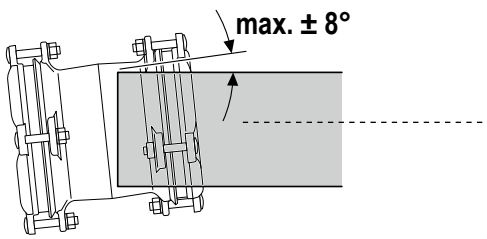
Body	Ductile cast iron GGG45 in accordance with EN-GJS-450-10.
Clamp ring	Ductile cast iron GGG45 in accordance with EN-GJS-450-10.
Coating	Resicoat® epoxy powder coating, type RT 9000 R4, meets the requirements of for example ACS, Belgaqua, KTW, NSF Standard 61, WRAS, KIWA. Colour red (RAL 3003). Minimum layer thickness 250 micron, in accordance with the GSK-register.
Varioseal rubber gasket	Potable water: EPDM in accordance with EN 681-1. Water and gas: NBR in accordance with EN 682.
Uni/Fiks and Uni/Fleks ring	POM (polyoxymethylene) and/or glass fibre filled Polyamide.
Uni/Fiksers	Stainless steel A4 (AISI 316).
Bolts and nuts	Stainless steel A2 (AISI 304) or stainless steel A4 (AISI 316). Bolts are PTFE coated, nuts are galvanised and passivated to prevent galling.
Washers	Stainless steel A2 (AISI 304) or stainless steel A4 (AISI 316).
Flanges	Drilling pattern PN16 or PN10 in accordance with EN 1092-2 or patterns in accordance with AWWA and JIS.
Working temperature	-5°C to +50°C.
Working pressure (PFA)*	Non restraint: up to PFA 25 bar water and up to 8 bar gas. Restraint: up to PFA 16 bar water and up to 8 bar gas. * For details see user manual or contact your supplier.
Certificates	ACS, Belgaqua, WRc, ÖVGW, SVGW, DVGW and KIWA. EN 14525: ÖVGW, SVGW and KIWA.

DN (mm)	range (mm)		
DN50	46	-	71
DN65	63	-	90
DN80	84	-	105
DN100	104	-	132
DN125	132	-	155
DN150	154	-	192
DN200	192	-	232
DN225	230	-	268
DN250	267	-	310
DN300	315	-	356
DN350	352	-	393
DN400	392	-	433

Sealing system



Nominal angularity*



* based on the middle of the range

Insert stiffener

In case of connecting PE or PVC pipes, install an insert stiffener.

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